

EZ-90 / EZ-91



REMOTE ENGINE STARTING SYSTEM OPERATING INSTRUCTIONS

INTRODUCTION

****IMPORTANT NOTES:- FOR EZ-91 MODEL ONLY****

The EZ-91 model is an add-on (expansion unit), without remotes or antenna. It must be controlled by an existing alarm or keyless entry system (host system). The "Infinity Run" feature is not available on an EZ-91 system. Most of the other standard remote starting features of this system can be controlled through the existing remote of the host system. For most applications, remote start is triggered by pressing a Factory remote's Lock button 3 times or pressing an Auxiliary channel button on an Aftermarket system. This is referred to in this manual as activating the "Green Start input wire".

***IMPORTANT INFORMATION: Primary and Optional Features**

-PRIMARY: These are features that must be connected in order for the system to operate properly i.e. Remote Start connections, Flashing lights, Brake Reset. For programming, the hood pin and program button are required.

-OPTIONAL: These are features to be connected only if desired or agreed upon by the customer and the installing dealer i.e. Door Locks, Trunk Pop, Dome Light Illumination, Horn-Honk, Anti-Grind, etc. These features may also require additional parts and/or labor fees. Consult with your installer beforehand to be sure of what is going to be installed with your particular system.

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This device complies with FCC Rules part 15. Operation is subject to the following two conditions: 1) This device may not cause interference, and (2) this device must accept any interference that may be received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. Such modification could void the user's authority to operate the equipment.

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OPERATION CAUTIONS & WARNINGS

CRIMESTOPPER SECURITY PRODUCTS, INC. and its **VENDORS** shall not be liable for any accident resulting from the use of this equipment. This system is designed to be professionally installed into a car or vehicle in which all items, such as parking brake and all associated components, door switches, transmission shift linkage, throttle linkage, and all engine safety features, are in perfect working condition.

DO NOT install the Remote Engine Starting System on MANUAL TRANSMISSION vehicles. If accidentally left in gear the vehicle could become a self-propelled threat to life and property.

IT IS ABSOLUTELY THE OWNER’S SOLE RESPONSIBILITY TO: A) Understand the operation of this system and its safety features. B) Check for proper operation of the system prior to accepting delivery of the vehicle from the installation facility. C) Check and maintain the condition of the vehicle and all items relative to the proper operation of this system and its safety features. D) Always leave the doors and windows closed and locked to protect against accident and theft.

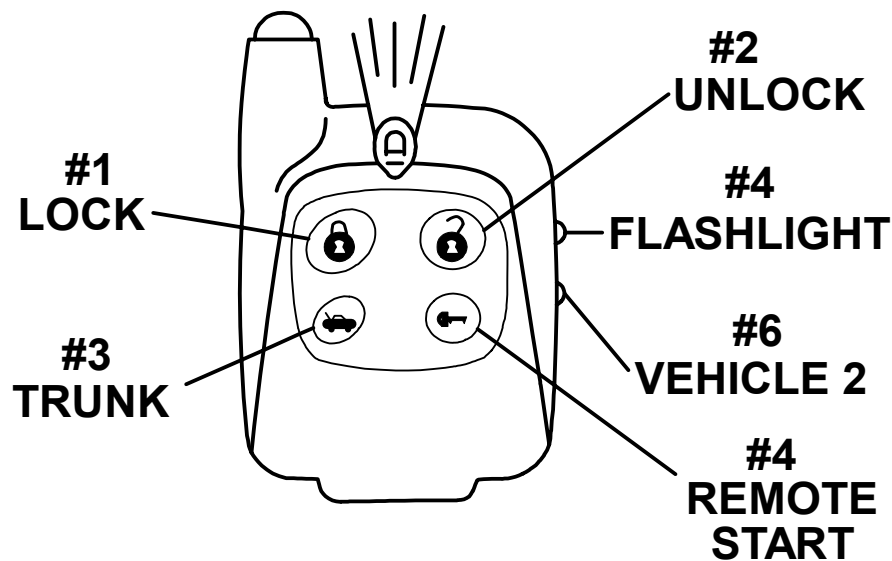
DO NOT remote start the vehicle in a closed garage. Make sure that the garage door is open or there is adequate ventilation. Failure to observe this rule could result in **injury or death** from poisonous Carbon Monoxide fumes.

USING THE REMOTE TRANSMITTER

The transmitter supplied with the EZ-90 system has six buttons. The button configuration of the EZ-90 is Factory-set and unchangeable. The EZ-91 model does not include remote transmitters, as it is designed for the expansion of a "parent" remote keyless or alarm system. See Page 11 for additional information on how to use your remote to operate a second vehicle equipped with an EZ-90 system.

NOTE: BUTTON #4 Remote Start

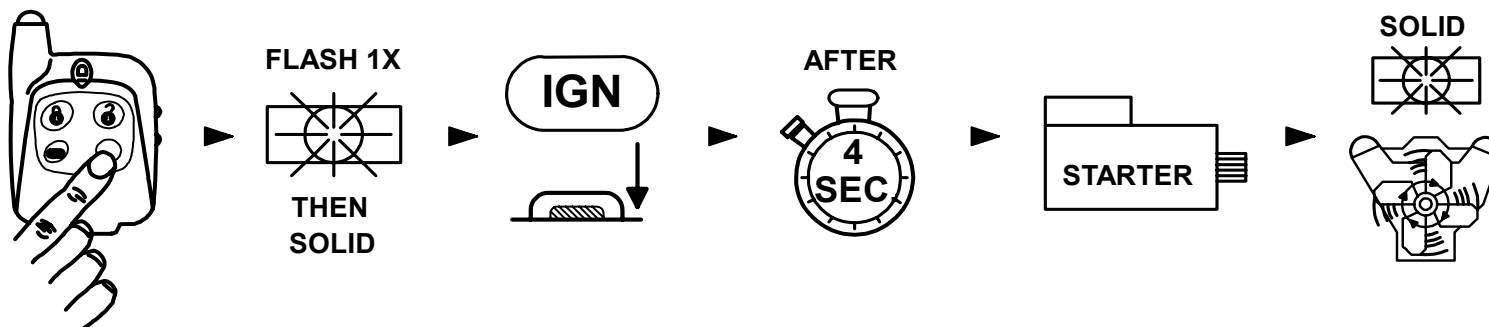
There is a deliberate delay built into the system on button #4 to help prevent accidental remote starting from the remote being in your pocket or purse. During normal use, press button #4 for at least 1 second to trigger a remote start.



REMOTE ENGINE CONTROL

REMOTE ENGINE STARTING - SUCCESSFUL START:

- 1) Press the remote start button for at least 1 second. (For EZ-91 models, activate Green Start input wire.)
- 2) Parking lights flash once; return solid, and the Ignition/Acc circuits turn on.
- 3) After a few seconds the Starter Motor engages, Parking lights and Acc circuits will turn off while cranking.
- 4) Engine Starts and Runs. Parking Lights and Acc turn back on, Doors Lock.
- 5) Engine will remain running for programmed run time until reset it is reset with Brake pedal.



REMOTE ENGINE CONTROL

REMOTE ENGINE STARTING - UNSUCCESSFUL START

In the event that the engine does not start on the first attempt, the system shuts down for a few seconds, then attempts to restart the engine a 2nd and 3rd time. For hard starting engines, the unit will allow a starter crank time of up to 10 seconds maximum. This should provide ample cranking time for difficult starts, but is limited to 10 seconds to help prevent damage to the starter from over cranking.

- 1) If the engine starts on 2nd or 3rd attempt, see steps 4 & 5 above of "Successful Start".
- 2) If Third attempt fails to start engine, the system will turn off and doors will remain locked. *NO FURTHER ATTEMPTS WILL BE MADE AUTOMATICALLY*

TURNING OFF A REMOTE STARTED ENGINE:

- 1) Engine is running in Remote Start (Parking lights ON).
- 2) Press and release the remote start button. (For EZ-91 model, activate Green Start input wire.)
- 3) Engine & parking lights OFF, Doors re-lock/re-arm.

ENTERING YOUR REMOTE STARTED VEHICLE:

- 1) With engine running, Remote Unlock system (If equipped) or open door with key.
- 2) Enter vehicle and be careful not to step on brake pedal! (Remote Start Reset)
- 3) Turn Ignition to ON/RUN position, then press brake pedal to reset the Remote Starter & Shift out of park.
- 4) Remote starter will reset instantly when the brake is pressed. Parking lights will turn off and the ignition key is now controlling your vehicle.

* NEW * REMOTE START RUN TIME RESET:

You can now reset the engine-run timer to allow for more running time after remote start has already occurred using the remote control. After a successful remote start, press both the Lock & Unlock buttons together for at least 2 seconds. The parking lights will flash 3 times and internal engine timer will reset back to zero minutes.

IDLE DOWN MODE:

This mode allows the unit to take over operation of the parked vehicle while the ignition key is removed and you exit the vehicle. The vehicle is put into a remote running condition before you exit and it will remain running for the programmed run time or until you come back.

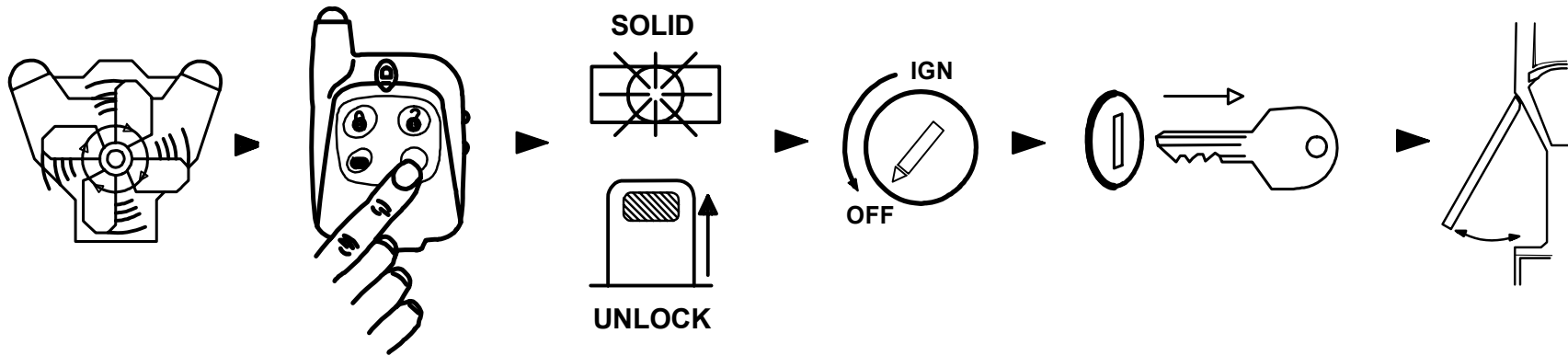
Idle Down Example:

- *You pull up to a convenience store for a quick stop, "Idle Down" mode keeps engine running when you exit the vehicle, (with keys in hand) remote lock doors or arm alarm. When you return, unlock, turn ignition ON and drive away.*

REMOTE ENGINE CONTROL

IDLE DOWN MODE - EXITING THE VEHICLE:

- 1) With vehicle engine running with key, press the Remote Start button for at least one second. (For EZ-91 model activate Green remote start input wire.)
- 2) Parking Lights will turn ON.
- 3) Doors will unlock, or if brake pedal is being depressed, doors will unlock when it is released.
- 4) Turn OFF Ignition and remove key. Engine should remain running.
- 5) Exit vehicle then remote lock doors if desired.
- 6) Engine will remain running for programmed run time or until you return (whichever comes first).



ENTERING A VEHICLE DURING “IDLE-DOWN” or “INFINITY RUN” MODES:

See “Entering Your Remote Started Vehicle” on Last page.

INFINITY RUN MODE (NOT AVAILABLE ON EZ-91 MODEL)

This mode can only be activated when "Idle Down" procedure. The Infinity Run mode allows the vehicle engine to remain running *INDEFINITELY* after the programmed run time elapses. This mode will allow the vehicle to be left running and unattended *without* the ignition key in the switch preventing the vehicle from being stolen. This mode can be beneficial to law enforcement or commercial trucks that need to remain running unattended for long periods of time. See next page for Infinity mode steps.

REMOTE ENGINE CONTROL

INFINITY RUN MODE – EXITING THE VEHICLE:

- 1) With vehicle engine running with the key, press the Remote Start button for at least 1 second, pause a few seconds, then press and release the remote start button a second time.
- 2) Parking Lights will start flashing, and doors will unlock.
- 3) Turn Ignition switch OFF, remove key and exit the vehicle. Engine should remain running.
- 4) The vehicle's parking lights will flash for the programmed run time of 12, 24, or 36, or 48 minutes and then switch to solid while motor runs indefinitely or until fuel supply runs out.

* NEW * SELECTABLE HOURLY COLD-START MODE (1-4 HOURS)

This mode allows the vehicle to be programmed to self-start every 1, 2, 3 or 4 hours and run for the programmed run time. This can be helpful during extremely cold conditions where engine fluid freeze-up is a concern. ***THE VEHICLE MUST BE OUTDOORS OR IN A WELL VENTILATED AREA!*** Once this mode is set, the unit will start at the programmed hourly interval and run for the programmed run time. To reset this mode, either start the vehicle with the key or the remote control.

SELECTABLE HOURLY COLD-START MODE – EXITING THE VEHICLE:

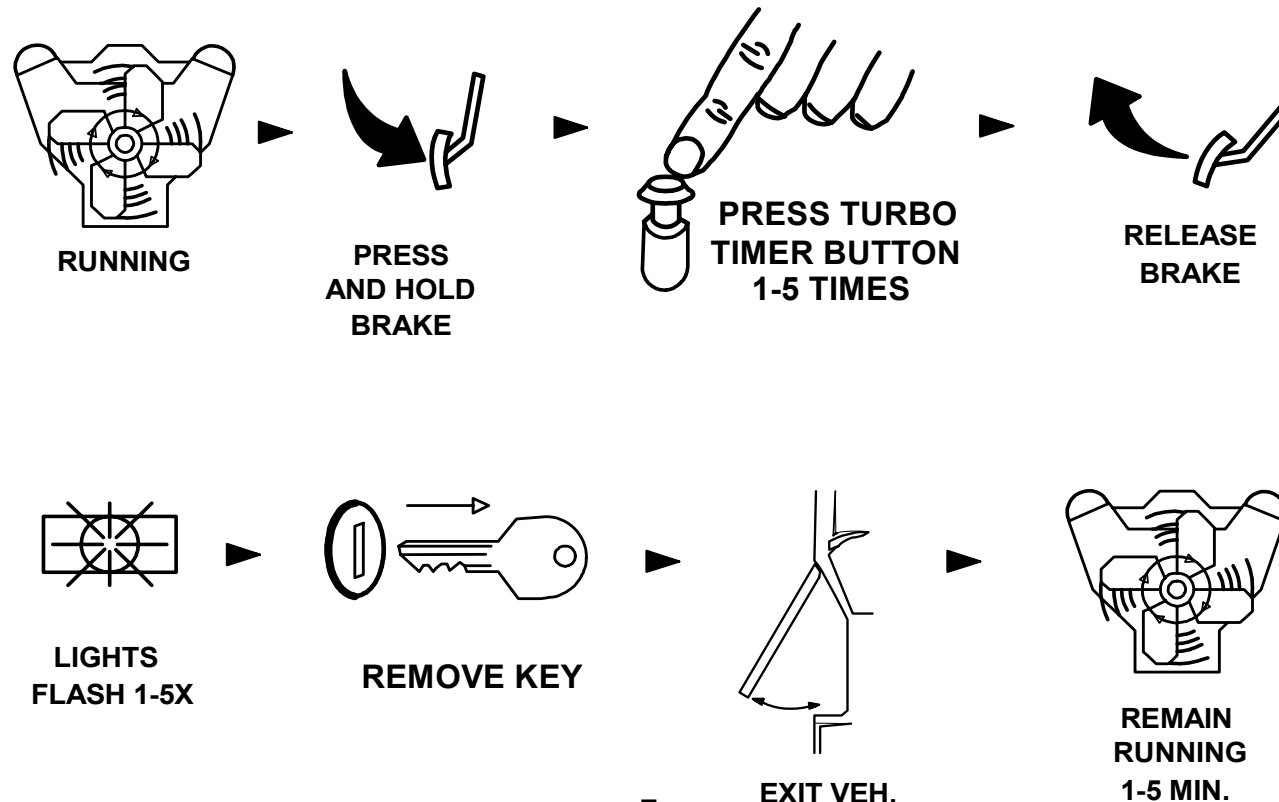
- 1) Engine should be running with the Key. Press the Remote Start button for at least 1 second. (For EZ-91 model, activate Green start input wire.) Lights will turn on signaling the remote start has turned on and doors will unlock.
- 2) Within 10 seconds press and release the valet/program button once for each hourly increment (1 time = 1hour, 2X = 2 hours, 3X = every 3 hours, 4X = every 4 hours).
- 3) Parking Lights will turn once the button is pressed and flash for each consecutive button press.
- 4) Turn Ignition switch OFF, remove key and exit the vehicle. Engine should remain running.
- 5) Once outside the vehicle, press and release the remote start button to turn off engine. (For EZ-91 model, activate Green Start input wire.) The parking lights will flash the number of times indicating the hourly increment for confirmation.
- 6) The vehicle will start by itself at the selected hourly increment until driven with key or started via the remote control.

TURBO TIMER MODE (OPTIONAL)

The optional Turbo Timer mode allows the EZEE system to keep a Turbo or Turbo Diesel vehicle running for 1 to 5 minutes [selectively] after you remove the key, exit the vehicle, and lock the doors remotely. This is handy for turbo cool-down without the need for expensive turbo timers. This mode requires the use of an extra part called a momentary switch/button that is not included with the kit. Check with your installer about adding this feature.

NOTE: The turbo timer button will also trigger a remote start if it is inadvertently pressed when the vehicle is not running. Please note this when installing the button and choose a location out of harm's way.

- 1) Engine should be running with the key.
- 2) Press and hold down the brake pedal.
- 3) Press your "Turbo Timer" button 1 to 5 times for each minute of run time you desire. (1 press = 1 min.)
- 4) As you release the brake pedal, your system will confirm by flashing the lights the same number of times the button was pressed.
- 5) Turn Ignition switch OFF, remove key and exit the vehicle. Remote lock your doors for safety. The engine should remain running for the selected number of minutes.



CONVENIENCE AND SAFETY FEATURES

KEYLESS ENTRY (POWER DOOR LOCK CONTROL, Optional)

This system enables you to remotely lock and unlock the vehicle's doors (if equipped with power locks) via remote control for safety and convenience. Note: This feature may require extra labor and/or parts to install. Press the Lock or Unlock transmitter button as you leave or come near the vehicle. Parking lights will flash once for lock and twice for unlock. If vehicle is running by the remote start system, the lights will flash, but return back to solid.

AUTO LOCK/UNLOCK (Improved)

The Auto Lock feature controls whether the doors will automatically lock/unlock on your vehicle when driving or with turning the Ignition ON/OFF. If the Auto Lock feature is turned on, and your system is in "Tach" mode, then the doors should automatically lock as the engine RPM's increase (driving). If the Auto Lock feature is turned on, and your system is in "Smart Tachless" mode, then the doors will lock a few seconds after the Ignition is turned on. When the Auto Lock feature is turned on, the system will always unlock the doors when the Ignition is turned off. With this feature turned OFF, the system will not automatically lock or unlock the vehicle. See your installer for programming information on this feature.

DOOR LOCK NOTE: *If your system has been setup with an optional starter kill relay, but you do not have power door locks, note the following: The lock and unlock buttons on the remote control must still be utilized to operate the Starter disable.*

REMOTE PANIC (Used only with Optional HORN HONK feature installation)

For personal safety this unit now includes a panic feature. To sound the vehicle car horn, press the Lock Button on the remote for more than 2 seconds. The vehicle horn will honk along with flashing parking lamps for 1 minute. Reset Remote Panic by pressing either the lock or unlock button. See next section for Horn Honk information.

HORN CHIRP/HONK OUTPUT (Optional: with Horn connection & programming)

This feature, if installed, will provide audible confirmation chirps from the factory horn for lock and unlock. When using this feature, pressing the Lock or Unlock button a 2nd time within 3 seconds will provide a horn chirp for audible confirmation. The system can also be programmed to provide 3 chirps when a remote start is requested using the remote. Note: Horn honk/chirp feature may require extra labor and/or parts to install.

REMOTE TRUNK RELEASE OR DOMELIGHT ILLUMINATION (Optional)

This system includes an output that can be programmed to remotely release a factory electronic trunk or illuminate the interior light when you unlock your vehicle for lighted entry at night. If you have the optional trunk pop installed, simply press and release the Trunk Button #3 on the transmitter to remotely open trunk. If your system is programmed for Dome Light illumination, then it will work automatically lighting the dome light for 30 seconds when you unlock your vehicle via the remote. The dome light will turn off after 30 seconds, or turning the key on (whichever comes first). The trunk Pop or Dome Light Illumination may require extra labor and/or parts to install.

CONVENIENCE AND SAFETY FEATURES

VALET MODE / STARTER DISABLE OVERRIDE

Before servicing your vehicle or handing the keys over to a Valet we recommend putting the unit into valet mode. The remote start function WILL NOT operate when in Valet mode. To enter Valet mode, turn the key to the ON position, press and hold Program/Valet switch for 5-6 seconds. The LED will turn on solid and the system is now in valet. Perform this procedure again to exit of Valet mode. The keyless entry will still function normally while in valet mode. In the event of a lost or broken transmitter, perform this step to override the Starter Disable (if installed).

ANTI GRIND / STARTER DISABLE (Optional, relay not included)

This optional feature prevents the user from accidentally grinding the starter if the Ignition key is turned too far to the start position while engine is already running from the remote starter. The Anti Grind/Starter Disable requires the use of an external relay. This system must be programmed to allow this relay to work as a starter disable.

PASSIVE STARTER DISABLE (Optional)

This EZ-90 includes a programmable feature to allow the Optional Starter Disable to activate automatically 1 minute after the ignition is turned off. This programmable feature may provide insurance discounts for "Passive Security" functions, or meet an insurance requirement in your state or province.

HOOD OPEN SAFETY (Requires grounding hood pin installation)

Prevents the engine from being Remote Started when hood is open. Helps eliminates risk of injury to someone working under the hood of the vehicle with a properly working hood pin installed. If Remote Start button is pressed with the hood open, the lights will flash once and the unit will not attempt a start.

BRAKE PEDAL RESET

Prevents starting or shuts off a remote started vehicle when this circuit is active or activated. (Helps prevent unauthorized tampering). This circuit shuts the system down immediately when brake pedal is pressed if the key is not in ignition and turned to the ON position.

OEM ALARM INTERFACE

This feature is designed to Disarm and Re-arm Factory equipped security systems in conjunction with remote start and keyless entry (if needed for your vehicle). This feature will maintain the original integrity and security of your vehicle's factory equipped systems before, during, or after remote start.

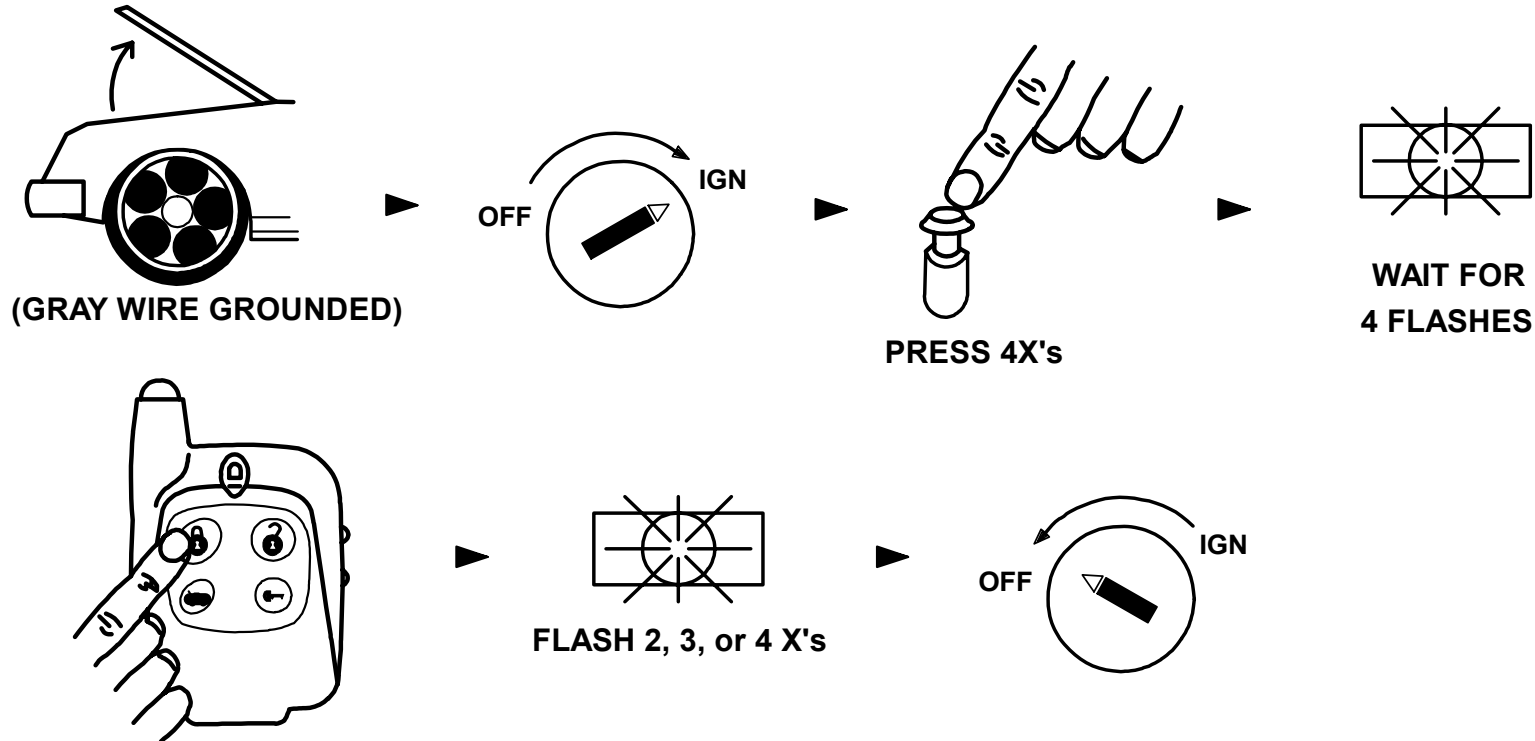
NOTE:

When changing, charging, or jumpstarting the vehicle's battery we recommend removing the main power fuses located on the heavy gauge RED wires near the remote start main control module.

TRANSMITTER PROGRAMMING

Note: All transmitter codes must be learned at time of programming!! The EZ-90 learns up to 4 different transmitter codes.

1. Open Hood (If no hood pin installed with your system, then you must ground the Gray Hood pin wire).
2. Turn key to the ON position.
3. Press Programming button 4 times, then after a few seconds the unit flashes the parking lights 4 times.
4. Press button #1 of the transmitter to be coded. You should get 2 light flashes indicating the unit is waiting for a 2nd code, then press button #1 of a second transmitter, the unit will flash 3 times indicating its waiting for the 3rd code and so on. If all 4 codes are learned, the unit will automatically exit code learning mode, otherwise turn key off and close hood. See diagram below.

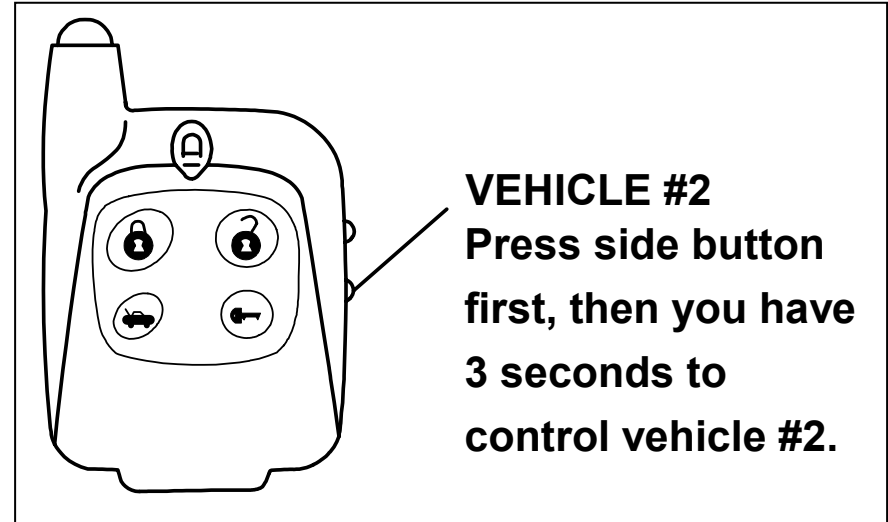


2-VEHICLE OPERATION

A single EZ-90 remote can control a second vehicle with an EZEE Start EZ-90 system installed.

SETUP:

Follow the “Transmitter Programming” steps on the second vehicle. Program Car #2’s existing remotes, then quickly press the Car #2 side button on your remote before pressing the Lock button on your remote to program it to Car #2. Once your remote is programmed to the second vehicle, press the car #2 side button on your remote first, and within 3 seconds press any of the 4 function buttons on your remote. You can keep pressing function buttons to control car #2 as long as it is within the 3-second window. After 3 seconds have elapsed, the remote will revert back to Car #1 control.



TROUBLESHOOTING: “BEFORE YOU CALL” SECTION

UNIT WILL NOT ATTEMPT A START (KEYLESS ENTRY STILL FUNCTIONS NORMALLY):

The unit is in Valet mode. Turn Ignition ON, press and hold valet/programming button for 6 seconds then turn key off. Unit is now out of valet mode and should perform a remote start. If optional LED indicator is installed, then it will be on solid when in Valet and OFF when out of Valet.

UNIT FLASHES LIGHTS ONCE AND WILL NOT ATTEMPT A START:

The unit senses a fault at the Brake (Purple wire is active) or the Hood is OPEN (Gray wire grounded). This is a safety feature of the unit. Check installation for faults and make sure hood is closed and latched and brake wire is not active. Make sure hood is in good condition and is depressed when hood is closed.

NO RESPONSE FROM REMOTE TRANSMITTERS:

- Check for proper power/ground wiring connections at module.
- Check Antenna Module connection. The antenna module included with this system must be plugged in.
- Transmitters may need to be programmed to the unit. See transmitter programming steps on Page 10.
- Check transmitter Batteries and replace if necessary.

TROUBLESHOOTING cont.

UNIT CRANKS VEHICLE BUT ENGINE NEVER STARTS:

- In extreme cold or severe weather conditions, the unit may take more than the first attempt to start the vehicle. The remote start unit will make up to 3 attempts to start the engine.
- In some vehicles, there may be a Factory anti-theft system that will not allow the engine to run without the key in the ignition. These systems may include Factory Security Modules, GM Passkey®/Passlock®, and RF Transponder systems (Ford P.A.T.S.®). Many late 1990's through 2005 vehicles include some type of Anti-Theft system which may require a bypass module. Check with your installer to make sure that the bypass device (if equipped) is functioning properly.
- The vehicle may have more than one Ignition or Accessory circuit that requires power for the vehicle to start. This is common on many late model vehicles.

SYSTEM IS UNSUCCESSFUL AT REMOTE START DURING EXTREME COLD CONDITIONS:

Please be aware that during sub-freezing conditions your remote starter may take more than one attempt to start, or it may not successfully start the vehicle after 3 attempts. During these conditions the vehicle may not properly start even using the key, therefore trying to start by the remote would also be unsuccessful.

VEHICLE STARTS BUT “CHECK ENGINE” LIGHT COMES ON OR ENGINE RUNS BADLY:

- Many 1995-UP General Motors cars/trucks require a secondary ignition circuit for the Transmission computer and other on board systems. If the vehicle is started without this wire energized, there may be a “Check Engine” or “Service Engine Soon” light on the dash. This may cause damage if the vehicle is driven in this condition. Check with installer to see if this circuit is present and has been properly connected to the system.
- In some cases [commonly Nissan vehicles], an additional “Start” (Cranking) circuit is required for the vehicle to run properly. This system includes a wire that can be used for this Starter #2 circuit. Check with your installer for details.

The logo for Crimestopper, featuring the word "CRIME" in a bold, black, sans-serif font, followed by "STOPPER" in a bold, white, sans-serif font, all contained within a black rectangular border.

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